BEFORE THE ARIZONA CORPORATION COMMISSION

MIKE GLEASON
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
KRISTIN K. MAYES
Commissioner
GARY PIERCE
Commissioner

IN THE MATTER OF THE APPLICATION OF UNS ELECTRIC, INC.'S REQUEST FOR APPROVAL OF ITS DEMAND-SIDE MANAGEMENT COMMERCIAL FACILITIES EFFICIENCY PROGRAM

DOCKET NO. E-04204A-07-0365

DECISION NO. 70524

ORDER

Open Meeting
September 23 and 24, 2008
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. UNS Electric, Inc. ("UNSE") is certificated to provide electric service as a public service corporation in the State of Arizona.

2. On June 13, 2007, UNSE filed an application for approval of its proposed Demand-Side Management ("DSM") Program Portfolio. On November 14, 2007, UNSE filed a revised Portfolio Plan, modifying the delivery mechanism and the measurement/evaluation plans for some programs.

3. The UNSE DSM Portfolio consists of seven proposed programs of which the Commercial Facilities Efficiency Program is one. On August 8, 2008, UNSE filed proposed modifications to the Commercial Facilities Efficiency Program.

Program Description

4. The UNSE Commercial Facilities Efficiency Program ("Program") would be meant to minimize some of the barriers to implementation of energy efficiency improvements in the commercial market, such as lack of capital, information search costs, transaction costs,

performance uncertainty, and the so-called "hassle factor". Commercial firms generally concentrate on their core business, and do not have the wherewithal to analyze energy use and improve efficiency unaided.

5. The Program would provide incentives directly to contractors for the installation of selected high efficiency lighting; heating, ventilation, and air conditioning ("HVAC"); and refrigeration measures. The incentives would be set at a higher level for this market in order to encourage contractors to market and deliver the program thus offsetting the need for UNSE marketing and overhead expenses. In order to further reduce overhead expenses, the program would employ internet-based measure analysis and customer proposal processing which would make the process easier for both contractors and customers. The Program also provides customers with the opportunity to propose innovative energy efficiency solutions through custom energy efficiency measures.

6. *Goals* The primary objective of the Program would be to improve the efficiency of energy use by UNSE's commercial customers by installing certain energy efficiency measures.

7. *Eligibility* The target market for this Program is small non-residential customers. Typically, this is defined as customers with an aggregate monthly demand of 100 kW or less. The vast majority of non-residential customers in the UNSE service region fall into this category. However, in order to avoid confusion in the market and unnecessary participant processing requirements, all non-residential customers would be eligible for this Program regardless of monthly demand. This includes schools and other public buildings.

8. *Incentives* To stimulate the market, incentives would be offered with the intention of reducing the measure payback to one year or less and cover from up to 85 percent of the installed cost of the measure. An annual incentive cap of $50,000 would apply to Large Power Service ("LPS") customers with loads of 500 kW or above. The $50,000 cap would be limited to two LPS customers per year unless sufficient funds are available, and an annual incentive cap of $10,000 would apply to all other customers. These caps would ensure that a few large UNSE customers would not consume a disproportionate amount of the available incentives. Staff has recommended that, in calculating the 85 percent incentive cap, any applicable energy efficiency

rebates and incentives, including federal, state, and local tax credits that are being offered for energy efficiency improvements should be taken into account, to ensure that the total amount of incentives from all sources does not exceed 85 percent.

9. *Installation Contractors* The Program would utilize contractors to provide turnkey installation services to customers. These Installation Contractors would be pre-qualified for providing program services. Qualification requirements would include meeting minimum business performance standards as defined by the Arizona Registrar of Contractors and completing a UNSE-sponsored orientation and training program. Installation Contractors would promote the Program directly to the non-residential customers and would perform the installation of energy efficiency measures upon agreement with the customer. Installation Contractors would have access to an internet processing system to prepare proposals for customers. Incentives would be paid directly to contractors and are detailed below in Table 1.

10. *Products and Services Provided* The Commercial Facilities Efficiency Program would facilitate the installation of energy efficiency measures in existing non-residential facilities. The Installation Contractors would provide marketing and installation of specific high efficiency lighting, HVAC, and refrigeration measures.

Specific Energy-Efficiency Measures to be included in the Program

11. *Lighting Measures*

- T8 lighting retrofits - Replacement of T12 fluorescent lighting with T8 lighting.
- Compact fluorescent lamp ("CFL") lighting retrofits - Replacement of incandescent lamps with screw-in fluorescent lamps.
- Exit sign retrofits - Replacement of incandescent and CFL exit signs with light-emitting diode ("LED") or electroluminescent exit sign lighting.
- Occupancy sensors - installation of occupancy sensor controls on lighting systems.
- De-lamping – Removal of unneeded fluorescent lighting fixtures.

12. *HVAC Measures*

- High-efficiency (14 SEER minimum) air conditioners ("AC") and heat pumps ("HP") - Installation of high-efficiency packaged air conditioners and heat pumps.

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- Programmable thermostats - Replacement of standard thermostats.

13. *Refrigeration Measures*

- Integrated refrigerated controls and motor retrofits - Retrofitting refrigerated cases in small commercial facilities with controls and other measures that reduce case energy use. An integrated package includes efficient fans and anti-sweat heater controls.
- Refrigerated case evaporator fan controls - Installation of evaporator fan controls.
- Anti-sweat heater controls - Installation of these types of controls.
- Refrigerated case fan motor retrofit - Retrofit with high-efficiency motors.

Incentives

14. Incentives would be paid for each of the above measures as shown in Table 1.

Table 1
UNSE Commercial Facilities Efficiency DSM Program
Proposed Incentives

LIGHTING MEASURES	*INCENTIVE*
Replace T12 Systems & with T8 Systems & Electronic Ballasts	$25 to $45 per fixture
Energy Efficient Integral Compact Fluorescent Lighting (CFL)	$7 to $10 per lamp[1]
Energy-Efficient Exit Signs	$60 per sign
Install Occupancy Sensors on Lighting Fixtures	$65 per sensor
Delamping and Replace 4-lamp T12 Systems with T8 Systems	$25 to $45 per fixture
HVAC MEASURES	
Programmable Thermostats	$100 per thermostat
High-Efficiency Packaged AC and Heat Pumps (<65,000 Btu/h)	$75 to $350 Depending on Size and SEER Rating
REFRIGERATION MEASURES	
Integrated Refrigerated Case Control and Motor Retrofit	Up to $6,200 per site
Refrigerated Case Evaporator Fan Controls	Up to $2,500 per site
Anti-sweat Heater Controls	Up to $1,300 per site
Evaporator Fan Motor Retrofit	$125 per PSC Motors and $150 per EC motor

15. UNSE will allow custom programs designed in cooperation with customers. Incentives for custom programs are proposed to be $0.10 per annual kWh saved.

[1] Commercial CFLs can cost more than standard CFLs since particular applications may require specialized lamps.

Program Marketing, Delivery, and Communications

16. While UNSE would utilize Installation Contractors to provide turn-key installation services to customers, the Program would be implemented by employing a qualified Implementation Contractor[2]. The Implementation Contractor would be sought through a competitive bidding process which would require UNSE to issue a Request for Proposal ("RFP") to professional services companies who are active in the field of DSM program implementation.

17. UNSE would also assign an in-house Program manager to oversee the Program, provide guidance on program activities that would be consistent with UNSE's goals and customer service requirements, and would provide a contact point for customers who are interested in or have concerns about the program.

18. The Implementation Contractor would be responsible for Program administration, application and incentive processing, monitoring the activities of the installing contractors, participation tracking and reporting, and overall quality control and management of the delivery process. As part of the implementation plan, the Implementation Contractor would conduct outreach to contractors, marketing and promotion to target customer groups, and education and training on the benefits and functioning of the Program.

19. The marketing and communications strategy would be designed to inform customers of the availability and benefits of the Program and how they can participate in the Program. The strategy would include outreach to Installation Contractors and other parties of interest in the market. An important part of the marketing plan would be content and functionality on the UNSE website, which would direct customers to information about the Program.

20. Working together with UNSE, the Implementation Contractor would design and develop the content, messaging, branding, and communication of all of the marketing and other materials used to promote the Program.

21. More specifically, the marketing and communications plan would include:

- Educational seminars targeted at the small business market to provide details about the Program and how to participate. The seminars would be tailored to the needs of

[2] Different from the Installation Contractor.

small business owners, building managers, vendors, and electrical, mechanical and refrigeration contractors.

- A combination of strategies including major media advertising, outreach, and presentations at professional and community forums and through direct outreach to non-residential customers. Marketing activities may include:

  -Brochures that describe the benefits and features of the Program, distributed through the call center and UESAZ.com, and available for various public awareness events, or mailed upon demand;

  -Targeted mailing to educate customers on the benefits of the Program and explain how they can participate through the pre-qualified installation contractors;

  -Customer and trade partner outreach and presentations informing interested parties about the benefits of the Program and how to participate;

  -Print advertisements promoting the Program placed in selected local media including local newspapers and trade publications;

  -Website content at UESAZ.com providing Program information resources, contact information, and links to other relevant service and information resources;

  -Access to the Program implementation website for pre-qualified installation contractors where they could analyze projects and prepare proposals for customers;

  -UNSE customer care representatives trained to answer any questions regarding the Program;

  -Presence at conferences and public events to increase general awareness of the Program and distribute Program promotional materials; and

  -Presentations by the Program manager to contractors and customer groups to actively solicit their participation in the Program.

Measurement and Verification

22. UNSE would adopt a Measurement and Verification ("M&V") strategy that calls for integrated data collection designed to provide a quality data resource for program tracking, management, and evaluation. This approach would entail the following primary activities:

- **Database management** - As part of Program operation, UNSE, the Implementation Contractor, or another approved contractor would collect the necessary data elements to populate a tracking database and provide periodic reporting.

- **Integrated implementation data collection** - UNSE would establish systems to collect data needed to support effective Program management and evaluation through

the implementation and customer application processes. The database tracking system would be integrated with implementation data collection processes.

- **Field verification** - UNSE would conduct field verification of the installation of a sample of measures throughout the implementation of the Program.

- **Tracking of savings using deemed savings values** - UNSE would develop deemed savings values for each measure and technology promoted by the Program and periodically review and revise the savings values to be consistent with Program participation and accurately estimate the savings being achieved by the Program.

23. Staff has recommended that UNSE modify those measures that do not provide sufficient energy savings to make them cost-effective, and eliminate those measures that cannot be modified in a manner that would produce cost-effective energy savings.

Program Budget

24. The proposed budget for the UNSE Commercial Facilities Efficiency Program is $400,000 per year. $235,200, or approximately 59 percent, would be budgeted for incentive payments. UNSE proposes annual budget increases of three percent. The proposed budget for year 2008 is shown in Table 2.

Table 2
UNS Electric
Commercial Facilities Efficiency DSM Program 2008 Budget

UNSE BUDGETED EXPENSES	Amount	Pct of Total
Administrative		
Labor	$26,400	6.6%
Travel Expense	$5,400	1.4%
Overhead	$3,120	0.8%
TOTAL	$34,920	8.7%
Marketing	$20,000	5.0%
Implementation		
Direct Activity	$8,736	2.2%
Materials & Hardware	$3,808	1.0%
Rebate Processing	$5,600	1.4%
TOTAL	$18,144	4.5%
Measurement and Verification	$2,900	0.7%
TOTAL UNSE EXPENSES	$75,964	19.0%

CONTRACTOR BUDGETED EXPENSES			
	Implementation		
	Labor	$21,600	5.4%
	Travel Expense	$1,800	0.5%
	Overhead	$1,680	0.4%
	Direct Activity	$2,464	0.6%
	Materials & Hardware	$1,792	0.4%
	Rebate Processing	$22,400	5.6%
	Marketing	$20,000	5.0%
	TOTAL	$71,736	17.9%
	Measurement and Verification	$17,100	4.3%
	TOTAL SUBCONTRACTED EXPENSES	$88,836	22.2%
INCENTIVES			
	Paid to Customers	$235,200	58.8%
	TOTAL BUDGET	**$400,000**	

25. If UNSE's M&V activities identify portions of the Program that are not meeting expected cost effectiveness, Staff has recommended that budget amounts be redirected toward other non-residential DSM programs.

26. Staff has recommended that UNSE be allowed to shift up to 25 percent of funding between non-residential DSM programs.

27. Staff has recommended that UNSE ensure that its in-house labor costs are recovered either through base rates or through the DSM adjustor, but not from both.

Benefit / Cost Analysis

28. Table 3 gives the Benefit to Cost ("B/C") ratio for each measure in the Program. Although Staff's analysis shows one of the HVAC-related measures with a B/C ratio slightly less than one, the results are very close to one, and considering the non-monetized environmental benefits (Table 5), it would likely exceed one. Staff's analysis indicates a B/C ratio of 1.52 for the Program as a whole; consequently, Staff has recommended approval of the Program.

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Table 3
Commercial Facilities Efficiency Program
B/C Ratio Estimated by Measure

LIGHTING MEASURES	*B/C RATIO*
Replace T12/Magnetic Ballasts with T8/Electronic	1.60
Energy-Efficient integral CFLs	1.03
Energy-Efficient Exit Signs	1.16
De-Lamping and Replace 4-lamp T12 with T8	3.07
Occupancy Sensors Installed on Lighting	4.47
HVAC MEASURES	
Programmable Thermostats	1.64
High-Efficiency AC	0.98
High-Efficiency Heat Pumps	1.23
REFRIGERATION MEASURES	
Integrated Case Control and Motor Retrofit	1.44
Evaporator Fan Controls	1.55
Anti-sweat Heater Controls	1.46
Evaporator Fan Motor Retrofit	4.25
Total Program	***1.52***

Demand and Energy Savings

29. UNSE estimates that annual demand and energy reductions for years 2008 – 2012 due to the Program would be as indicated in Table 4. Each year shows incremental savings; the data are not cumulative.

Table 4
Commercial Facilities Efficiency Program
Demand and Energy Savings

ANNUAL INCREMENTAL REDUCTIONS	2008	2009	2010	2011	2012
Peak Demand (kW)	397	420	433	446	453
Energy (MWh)	2,219	2,351	2,422	2,494	2,534

30. Other benefits of the Program would include reduced emissions although these impacts are not monetized. UNSE has projected environmental benefits over five years of the Program (2008 – 2012) as shown in Table 5.

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Table 5
Five-Year Projected
Environmental Benefits

SO_x	9,375	lbs.
NO_x	30,288	lbs.
CO_2	19.5 million	lbs.

31. Over the lifetime of the Program measures, UNSE estimates the reductions in energy and environmental emissions, as shown in Table 6.

Table 6
Projected Lifetime
Energy and Environmental Benefits

Energy	**113,915**	MWh
SO_x	88,854	lbs.
NO_x	278,066	lbs.
CO_2	182.2 million	lbs.

Reporting Requirements

32. Staff has recommended that if the Program is approved, it should be included in UNSE's semi-annual DSM reports filed with the Commission. Staff has recommended that, at a minimum, reporting for the Program should include:

a. Number of customers who chose not to accept the installation contractor's proposal to install energy-saving measures;

b. Number of participants in the Program;

c. Number and type of measures installed;

d. Average cost of installed measures and the actual cost paid by the customer;

e. An attestation from a UNSE officer that labor and other expenses charged to the Program are incremental costs that are not being recovered in base rates;

f. A complete energy analysis for each completed project including a listing of all energy efficiency measures and all calculations of present and proposed energy use;

g. Complete details of the calculation of each incentive payment;

h. Details of the actual measurement and verification of post-measure energy use reductions;

i. Descriptions of Program marketing;

j. Copies of new or revised marketing materials;

k. Estimated cost savings to participants;

l. Energy savings as determined by the monitoring and evaluation process;

m. The total amount of the Program budget spent during the previous six months, the previous 12 months, and since the inception of the Program;

n. Any significant impacts on Program cost-effectiveness;

o. Environmental savings; and

p. Descriptions of any problems with proposed solutions including movements of funding from one program to another.

Summary of Staff Recommendations

33. Staff has recommended that the UNSE Commercial Facilities Efficiency Program be approved with the following conditions:

a. Incentive payments shall not exceed 85 percent of the cost of the measure, and in calculating the 85 percent cap, any applicable energy efficiency rebates and incentives from other entities, including federal, state, and local tax credits that are being offered for energy efficiency improvements, should be taken into account, to ensure that the total amount of incentives from all sources does not exceed 85 percent.

b. Budget amounts for portions of the Program that are not meeting expected cost effectiveness should be redirected toward other effective non-residential DSM programs.

c. UNSE should be allowed to shift up to 25 percent of funding between non-residential DSM programs.

d. UNSE should modify those measures that do not provide sufficient energy savings to make them cost-effective and eliminate those measures that cannot be modified in a manner that would produce cost-effective energy savings.

e. If the Program is approved, it should be included in UNSE's semi-annual DSM reports filed with the Commission.

f. Reporting for the Program should include each of the items cited in Finding of Fact No. 32.

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CONCLUSIONS OF LAW

1. UNSE is an Arizona public service corporation within the meaning of Article XV, Section 2, of the Arizona Constitution.

2. The Commission has jurisdiction over UNSE and over the subject matter of the application.

3. The Commission, having reviewed the application and Staff's Memorandum dated September 10, 2008, concludes that it is in the public interest to approve the UNSE Commercial Facilities Efficiency Program, as discussed herein.

ORDER

IT IS THEREFORE ORDERED that the UNS Electric, Inc. Commercial Facilities Efficiency Program be and hereby is approved, as discussed herein.

IT IS FURTHER ORDERED that incentive payments shall not exceed 85 percent of the cost of the measure, and in calculating the 85 percent cap any applicable energy efficiency rebates and incentives, including federal, state, and local tax credits that are being offered for energy efficiency improvements should be taken into account, to ensure that the total amount of incentives from all sources does not exceed 85 percent.

IT IS FURTHER ORDERED that UNS Electric, Inc. shall modify those measures that do not provide sufficient energy savings to make them cost-effective, and eliminate those measures that cannot be modified in a manner that would produce cost-effective energy savings.

IT IS FURTHER ORDERED that UNS Electric, Inc. be allowed to shift up to 25 percent of funding between non-residential programs or measures if such shifting would result in more cost-effective DSM.

IT IS FURTHER ORDERED that the UNS Electric, Inc. Commercial Facilities Efficiency Program be included in UNSE's semi-annual DSM reports filed with the Commission.

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IT IS FURTHER ORDERED that reporting for the UNS Electric, Inc. Commercial Facilities Efficiency Program shall include, at a minimum, each item shown in Finding of Fact No. 32.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION

CHAIRMAN COMMISSIONER

COMMISSIONER COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 30th day of September, 2008.

BRIAN C. McNEIL
EXECUTIVE DIRECTOR

DISSENT: _____

DISSENT: _____

EGJ:JJP:lhm\KOT

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